

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014508**Date Inspected:** 01-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Listed below.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girders**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

- 1) OBG Lifts 1W/2W - plate D stiffener splice repair welding
- 2) OBG Lifts 3W/4W - plate C field splice welding
- 3) OBG Lifts 3W/4W - plate F field splice welding
- 4) OBG Lifts 5W - placing in final location
- 5) OBG Lift 6W - prep at Pier 7

1) The QAI observed ABF personnel grinding and making first time repairs to the complete joint penetration (CJP) vertical (3G) butt weld splices on the plate D stiffeners OBG lifts 1W/2W field splice. The QAI noted the repairs are being performed after ultrasonic testing (UT) has identified rejectable indications in the splice welds. The QAI noted that the Quality Control (QC) Inspector Tom Pasqualone is monitoring this welding and conducting additional inspections of the stiffener splices. The QAI observed ABF workers Chun Fai Tsui, ID 3426, and James Zhen, ID 6001, making the repair welds with shielded metal arc welding (SMAW) and 1/8" diameter E-7018H4R electrodes. The QAI was informed that welding procedure specification (WPS) ABF-WPS-D15-1001-Repair is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements. See the attached photo.

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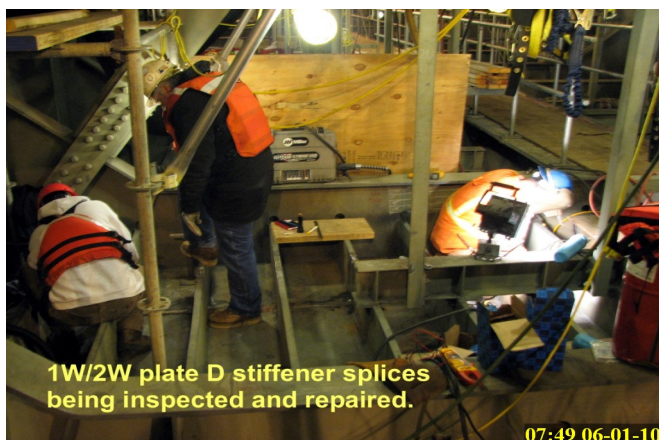
2) The QAI observed ABF personnel setting up and welding the inside of plate C at OBG lifts 3W/4W field splice. The QAI noted that this 3G CJP weld is being made in segment C1. The QAI noted that the QC Inspector Bernie Docena is monitoring this welding. The QAI observed ABF workers Jin Quan Huang, ID 9340, and Song Tao Huang, ID 3794, making the welds with gas shielded flux cored arc welding (FCAW-G). The QAI was informed that ABF-WPS-D15-3040A-1 is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements. See the attached photo.

3) The QAI observed ABF personnel welding the root pass on plate F at OBG lifts 3W/4W field splice. The QAI noted that the Quality Control (QC) Inspector William Sherwood is monitoring this welding. The QAI observed ABF worker Xiao Jian Wan, ID 9677, making the 3G CJP weld with SMAW. The QAI was informed that ABF-WPS-D15-1040B is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements. The QAI noted that prior to welding, the joint fit-up appeared to be general conforming to the contract documents. See the attached photo.

4) The QAI observed ABF personnel using hydraulic rams to pull OBG 5W segment into the final position. The QAI noted that as the 5W is being pulled toward 4W, the workers are aligning the stiffeners and bolted splice plates for final assembly. See the attached photo.

5) The QAI observed ABF activities at the Pier 7 location. The QAI did not observe any Quality Control (QC) Inspectors present. The QAI observed that OBG 6W is moored at the pier and there were no ABF personnel observed working at this location. The QAI did observe that ABF personnel are welding on barges and other job related equipment at the pier. The QAI also noted that the contractor is assembling parts of the temporary trestle and tower crane frame on the barges at Pier 7. The QAI did not observe any personnel welding on bridge components.

The QAI reviewed contract related documents including the submitted and approved Welding Quality Control Plan (WQCP) and approved revisions to the WQCP and newly issued ABFJV non-conformance reports. The QAI updated the records of the approved welders and inspection personnel, as currently approved by the Engineer. The QAI continued reviewing the contractor's welding reports, submittal # 1536 Revision 5. The review was in progress at the end of this shift.



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Summary of Conversations:

The QAI relayed the observations of OBG splice welding to the QAI Danny Reyes. The QAI also generated a shift turn-over report with this information. The QAI relayed the observations at Pier 7 and the general status of work observed to the Lead QAI Bill Levell. Except as described above, there were no other notable observations or conversations during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi, (916)813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Croff, Scott

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer